Provide the following utilizing your understanding of Avogadro's number:

-Mass, in grams, of 3.0 x 10^{-3} mol of ammonium phosphate

-Moles of chloride ions in 0.4 g of aluminum chloride.

Answer:

1) n=m/M   m=n·M
   M((NH$_4$)$_3$PO$_3$) = 149 g/mol
   m=3.0 x 10^{-3} · 146 = 0.438 g

2) n=m/M
   M(Cl) = 35.5 g/mol
   n (Cl') = 0.4/35.5 = 0.01 mol